The {X[k]} may be estimated by applying a discrete Fourier transform to the samples of a single period (or small number of periods) of e(n) as in Figures ~~3b-3c~~ 2a-2b. The preferred embodiment only uses the magnitudes of the Fourier coefficients, although the phases could also be used. Because the LP residual components {e(n)} are real, the discrete Fourier transform coefficients {X(k)} are conjugate symmetric: X(k) = X*(N-k) for an N-point discrete Fourier transform. Thus only half of the {X(k)} need be used for magnitude considerations. Of course, with a pitch period of p samples, N will be an integer equal to [p] or [p]+1.

Please replace the first paragraph on page ~~12~~ 13 with the following amended paragraph:

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(2) apply speech activity detection to each of the ~~six~~ eight 20-sample sub-frames of the frame; the speech activity detection may be by the sum of squares of samples with a threshold.

Please replace paragraph (12) on page 15 with the following amended paragraph:

(12) pick the pitch candidate as follows (compare Figure 3): if pcorr[0] is less than 4*threshold, then put i = –1; if pcorr[0] is at least 4*threshold, then i = 0 unless pcorr[k] is at least 0.8*pcorr[0], then take i = the largest such k unless additionally pcorr[k] is less than 0.9*pcorr[0] in which case take i = –1.